

COMB OR EXTRACTED HONEY?  
C. DAVENPORT.

WINTERING BEES—OTHER TOPICS.  
EDWIN BEVINS.

# AMERICAN BEE JOURNAL

Published by GEORGE W. YORK & CO., 144 & 146 E. Erie Street.  
WEEKLY—\$1.00 A YEAR.

44th Year.

CHICAGO, ILL., JAN. 21, 1904.

No. 3.

(See page 38.)



Apiary of H. M. Carr, of Bosque Co., Tex.



Apiary of Hans Christensen, of Skagit Co., Wash.



Apiary of Theodore Steger, of Washington Co., Wis.

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While writing you this, I must say the hives I ordered of you were first-class in every particular, and not one mistake.  
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Pennville, Ind. ALFRED GRISSOM.

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Gentlemen:—I am well pleased with your prompt way of doing business. The goods are just simply nice. Many thanks.  
Yours truly,  
JOHN D. A. FISHER.

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Herkimer, N. Y. W. A. KLOCK.

Your chaff hive, the last one, is the thing. I had them out with no protection, not a fence or tree, and the north wind howling around them with mercury at 42 degrees below, and that wide entrance all open. I did not expect them to come through. It seemed that enough arctic cold would come in the entrance to freeze brass bees; but these came out strong in spring.  
Marion, S. D. S. J. HARMELING.

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# ESTABLISHED IN 1861 AMERICAN THE OLDEST BEE-PAPER IN AMERICA BEE JOURNAL

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

GEORGE W. YORK, Editor.

CHICAGO, ILL., JAN. 21, 1904.

Vol. XLIV—No. 3.

## Editorial Comments

### Out of the Honey and Bee-Supply Business.

It seems that a good many of our readers either have forgotten it, or else did not notice the announcement made in these columns, that on Oct. 1, 1903, we severed all our connection with the honey and bee-supply business; also beeswax. We are now devoting our whole time to the American Bee Journal, and find plenty to do, we can assure you.

For anything wanted aside from the American Bee Journal and bee-books, we respectfully refer our subscribers to the advertisements to be found in these columns. We believe every one of our advertisers is entirely reliable. If we did not feel so we would not advertise for them, as we are more than ever against all kinds of frauds and crooked dealing of every kind. Kindly patronize our advertisers, and when writing any of them, if you will also say you saw their advertisement in the American Bee Journal, it will be greatly appreciated.

### Lectures on Bee-Keeping at Farmers' Institutes.

When work of this kind is done, why is not some one engaged for it who is an up-to-date bee-keeper? In the report of the New Jersey State Board of Agriculture appears a lecture given before that body, which lecture had been given at the various institutes throughout the State. Here are some expressions used in the lecture:

- "The average life of a working bee is about five weeks."
- "They have a queen-bee, and she rules them all, and as she moves majestically from cell to cell, is followed by a retinue of attendants who fulfill her every wish."
- "A bee's bite injects into the system formic acid."
- "Comb honey has one advantage over strained honey."

This lecture was delivered by Mr. D. Everitt Lyon, Ph.D., and some reporter or printer may have been responsible for saying "five weeks" instead of "six weeks," and "bite" instead of "sting;" but any up-to-date bee-keeper, even though untitled, ought to know better than to say "strained" instead of "extracted," and to talk about the queen ruling all, and being "followed by a retinue of attendants who fulfill her every wish."

### Grading Honey by Quality.

Why is it that in most, if not all, the attempts at making rules for grading honey the matter of quality has been left unmentioned? It is of vastly more consequence that honey should be of the best quality than that it should have two cells less or more unsealed, or two cells more or less travel-stained; then why not make quality instead of looks the leading item in grading? Is it possible that until now no one has ever thought about it? Hardly.

Well, shall the rules be amended so as to make quality stand first? Very many will probably reply at once in the affirmative, but when asked *how* it shall be done, the reply will not be so prompt. The specific gravity has something to do with quality, and that can be measured in extracted honey, but not easily in comb honey. Besides, very heavy honey may be of very poor flavor. How are you going to measure flavor? What shall be the standard?

In defense of the Washington rules, and, indeed, perhaps of all

other rules, it may be said that although no mention is made of quality, the matter is not utterly ignored, for "the honey is to be classified according to color, using the terms white, amber, and dark, and the color generally tells *something* about the quality."

It is easy to shy stones at the rules. Let the next one who does it please tell us *how* the amended rules should read.

### Some Big Crops of Honey.

Some enormous crops of honey are reported as having been harvested by members of the National Association, although only part are reported. One is somewhat at a loss to know how to compare these, for some of the big crops are partly or wholly of comb honey, and plainly a thousand pounds of comb honey is worth more than an equal amount of extracted. Perhaps it is not out of the way to say that 1000 pounds of comb is equivalent to 1500 pounds of extracted. Figuring on this basis, and reducing the comb honey to terms of extracted, the crops reported that equal or exceed 50,000 pounds are as follows:

J. F. Crowder, Cal..	51,800	Emerson Bros., Cal.	80,000
N. E. France, Wis..	54,000	W. D. Moffatt, Cal.	80,000
W. L. Coggeshall, N. Y.	57,500	W. T. Richardson, Cal.	84,000
J. F. McIntyre, Cal.	90,000	L. E. Mercer, Cal...	100,000
Jos. Moffatt, Cal...	60,000	M. A. Gill, Colo...	112,500
J. C. Stanley & Son, Ill.	60,000	H. H. Hyde, Tex...	122,500
T. F. Arundell, Cal.	64,000	M. H. Mendelson, Cal.	123,000
Wm. Rohrig, Ariz..	72,000	W. H. Pain, Haw. Is.	300,000

There is some room for believing that one of the ciphers should be erased from the last number, for 300,000 pounds of honey from 200 colonies hardly comes within the range of probability. Omitting that name, we still have 15 bee-keepers securing the equivalent of 1,181,300 pounds of extracted honey, or an average of 78,753 pounds each.

### Doubling Shaken Swarms.

M. A. Gill reports in *Gleanings in Bee-Culture* that he uses two colonies of bees to make a shaken swarm, using only starters in the brood-frames, and that these mammoth swarms build 95 percent of their combs with worker-cells.

### Sheet-Lead for Hive-Covers.

This is suggested by A. H. Wilkes in the *British Bee Journal*. Information is lacking as to cost and durability—two important factors. He says:

"May I suggest thin, or laminated (technical term) rolled sheet-lead of the strength necessary to weigh one pound for one square yard? It can be quickly and easily fixed on any shaped hive-roof, and is absolutely weather-proof so long as the surface is not pierced. Sheet-lead in this form can be had of any plumber. It only needs to cut the lead of such size as to allow plenty of length to overlap on all sides, and if secured with a copper tack here and there, it will carry off rain effectively."

### Why Do Bees Build Drone-Comb?

Some discussion on this point is occurring in *Gleanings in Bee-Culture*. M. A. Gill thinks the bees do not *prefer* to store honey in drone-comb, but when they build drone-comb it is because they desire to rear drones. He cites as proof the bees building drone-comb in odd corners busily until a swarm is shaken, when they will build only worker-comb. M. W. Shepherd says that when a heavy honey-flow is on, "if there is any comb to be built, it will be store or drone comb, no matter whether you use light, medium, or heavy brood foundation."



and Geo. W. Phillips makes the remarkable statement that according to his experience (and he has had a large experience producing extracted honey in Jamaica), "bees will build drone-comb after a swarm is shaken, about the same as before."

## Miscellaneous Items

**Capt. J. E. Hetherington**, of Otsego Co., N. Y., passed away Dec. 31, after an illness of about three weeks. Had he lived until Jan. 7, he would have been 64 years of age. The notice came from his son, Hubert B. Hetherington, dated Jan. 8. Capt. Hetherington was one of the most extensive and successful bee-keepers in the whole world, counting his colonies by the thousand. As soon as we can arrange it, we will be pleased to give in these columns a picture and biographical sketch of Capt. Hetherington, whose departure will be deeply felt by not only all who knew him intimately, but by thousands of bee-keepers who were aware of his value as a leader in bee-keeping.

LATER.—Jan. 12 we also received the following from Mr. P. H. Elwood, referring to the death of Capt. Hetherington:

FRIEND YORK:—The closing hours of 1903 bereft us of our beloved Capt. Hetherington. To his family and intimate friends the loss is immeasurable. Among bee-keepers the one has fallen who for more than a generation has stood at the head of progressive, practical bee-keeping in this country.

Yours truly,  
P. H. ELWOOD.

**Picturesque Cincinnati** is a most beautifully illustrated 80-page pamphlet, 8 $\frac{3}{4}$ x10 $\frac{1}{4}$  inches, printed on the finest paper. It "shows" that city in elegant style. It is indeed a work of art. It was sent to us with the compliments of the publisher (Albert O. Kraemer), J. C. Frohlinger, and the Fred W. Muth Co. Price, 50 cents, if you wish a copy. Mr. Frohlinger asks in a letter, "How will this do for a convention city?" We should say it is just the place for the National Bee-Keepers' Association to meet some time.

**Mr. Wm. F. Ware**, of Cumberland Co., N. J., gives his opinion of this journal in these words:

"The American Bee Journal has been a big help to me in working with my bees. I can not get along without it. How any one who keeps only a few bees can, is more than I can tell. So, please send along the good "Old Reliable" for one more year, and if we do not get a good crop of honey next season, it will not be its fault."

**A New Bee-Keepers' Organization.**—The bee-keepers of Jefferson Co., N. Y., recently organized with the following officers: President, M. C. Harrington; 1st Vice-President, A. A. French; 2d Vice-President, Pearl Symonds; Secretary, Geo. B. Howe, of Black River; and Treasurer, D. R. Hardy. All bee-keepers in that region are invited to join. Dues are \$1.00 a year.

**Mr. Etienne Giraud**, of France, writes us as follows:

"The year 1903 was not a good one for queen-rearing. Rainy weather is not propitious for the mating of queens. The bees preferred by us are produced from a Cyprian queen mated to an Italian drone."

**The Apiary of Theodore Steger** is shown on the first page. Mr. Steger wrote us as follows:

MR. EDITOR:—I send you pictures of my house and apiary. The hives all face to the southeast. Fifty-five colonies can be seen, the other 7 being in the garden, and one is under a cherry-tree. The big building on the right is the barn. The two boys on the right are Peter and Paul, aged 13 and 15 years; I am standing next, then our oldest child, Dora, 17 years old, and little Mary, aged 9; then her dear ma, Mrs. Jennie Steger. The picture was taken about the middle of August, and we were standing about with the bees flying around our heads.

I got 8400 pounds of extracted honey from 60 colonies. We could not take any honey from the last swarms, but they stored enough for winter. The supers are all removed, and as soon as cold weather comes we can put them into the cellar.

Dora and I enjoy reading the American Bee Journal, and I think she will be a pretty good bee-keeper, too. The boys and little Mary are also very handy.

I would write oftener about our bees and bee-keeping neighbors, but I am a German, and it is hard for me to write letters.

Washington Co., Wis., Nov. 7. THEODORE STEGER.

**The Apiary of Hans Christensen** appears on the first page. When sending the picture, Mr. Christensen wrote as follows:

I send you, under separate cover, pictures of myself, bee-yard, and my house where I keep bachelor's hall. I am leaning against a hive in the apiary, and the other person is Mr. Hansen.

The hives in the picture look rather irregular, mainly because some of them are raised in front, and an inch block put under the corners, to enlarge the entrance.

My honey harvest this year consisted of 160 pounds of extracted, and 35 or 40 pounds of comb honey. A year ago I had 2300 pounds, all extracted, but this year the bees gathered nothing since wine-maple stopped blooming.

HANS CHRISTENSEN.

Skagit Co., Wash., Oct. 6.

**Hon. Eugene Secor** is still the "poet-laureate" of bee-keeping. His latest production is the following, which will doubtless be read with deepening interest by all:

### When the Bees are Coming Home.

'Tis evening; Day has folded its tired wings  
To rest, fann'd by the scented Southern breeze;  
And homeward fly the prudent honey-bees  
To join their happy sisters 'neath the trees,  
Content if some small gain their labor brings.

The fragrant grass is cushion'd seat for me,  
And in my lap the head of soft brown hair  
That once my heart entangled lying there—  
More youthful then, but not more dearly fair—  
And sweet her lips as nectar sipped by bee.

"What fools we mortals be!" We fume and fret  
Because of life's unceasing round of toil,  
Permitting gold our happiness to spoil,  
When love and service are the holy oil  
That sweetens all the things we need to get.

The soft, low hum that falls upon our ears,  
As darkness creeps upon the glowing West,  
Is Labor's song proclaiming that the best  
Of all that's good is found thro' daily quest—  
And duty leaves no time for useless tears.

EUGENE SECOR.

Accompanying the foregoing was this paragraph about the weather and the bees:

We are having most delightful winter weather. Several days of late the bees might have flown a little if they had been out-of-doors, but mine are in the cellar, as usual. I am practicing, of late winters, a little of the Barber idea. The temperature of my cellar stands, from fall until spring, at from 45 to 60 degrees. During the early part of the season the bees are perfectly quiet at even the last-named temperature, but towards spring they get a little uneasy, and I have to keep the room very dark. The trouble with my cellar is, that I can't control it entirely, as hot-water pipes run through it.

EUGENE SECOR.

Mr. Secor has been doing considerable writing on bees and bee-keeping outside of the bee-papers the past year. He is now the editor of the Northwestern Agriculturist, which claims to have a weekly audience of at least 150,000 people; and the Twentieth Century Farmer, also, has contained quite a good deal apiarian matter from Mr. Secor's bright pen-point. In addition to the foregoing, he has written a number of papers for State associations to which he belongs. Besides the multitude of interesting things in Mr. Secor's apiarian contributions, they possess the additional very important characteristic of authenticity. No errors or drivelling nonsense about them. His readers can feel a confidence in reading his writings on bees that they can not indulge when reading the most of the bee-matter found outside the strictly bee-papers.

**The Apiary of H. M. Carr**, a picture of which is on the first page, is thus described by its owner:

In regard to photograph sent, as will be seen, the hives are placed in pairs—two pairs (4 hives) with entrances in opposite directions form a group. There is a passage-way of about 2 feet between the rear ends of the hives. The enclosure is 30 yards square, and contains 56 hives, honey-house and space for wax-extractor. There are some advantages in having the hives arranged in this way, but the bees get confused, as all the hives and groups look just alike. I lost a large percentage of virgin queens at this yard last spring, that could be accounted for in no other way than that they went into the wrong hive on returning from their first flight. The worker-bees do not mistake any hive in their own group, but a hive in another group that has the same position as their own, seems to trouble them. I intend placing

some odd objects about in the apiary another season that they may the better mark the location.

I use the regular 8-frame hive, and like the Hoffman frame the best. I have been keeping bees for eight years. The first year I procured some thick-top, loose-hanging frames, and have used them right along with the Hoffman, but I do not like them. I now use staples to space the thick-top frames that I have.

I sell all my honey in the home market, and have no trouble in building up a good demand for it.

I like the American Bee Journal. I have been taking it four years, and am with it to stay as long as I live, I think.

Bosque Co., Tex.

H. M. CARR.

## Convention Proceedings

### THE COLORADO CONVENTION.

Report of the Proceedings of the Colorado State Bee-Keepers' Convention, Held in Denver, Nov. 23, 24, and 25, 1903.

BY H. C. MOREHOUSE, SEC.

(Continued from page 25.)

#### BEST USE OF UNFINISHED SECTIONS.

**QUESTION.**—Which is the more profitable, to sell unfinished sections or extract the honey and use them for bait-combs the following season?

**Mr. Aikin.**—I have pretty nearly decided to do away with bait-combs, but conditions determine when they can be used profitably. If one uses shallow frames bait-combs are not much good. If you add to the depth and use of a 10-frame width you need bait-combs. Then it is profitable to extract your unfinished sections and use them as bait-combs. But if you do not need bait-combs, it is better to sell them.

**Mr. Morehouse.**—I have had some experience that may throw light upon this question. This season I sold all my unfinished sections that weighed one-half pound or more at the groceries in Boulder, receiving for them 7 cents per pound by weight. I thought at the time that it paid better than extracting them, but considering the higher price of sections and foundation, together with their value as bait-combs, I am now satisfied that I lost money. In the future, unless conditions materially change, I will extract my unfinished sections.

**H. Rauchfuss.**—The biggest crop I ever had was one year when I used no bait-combs at all. In another season the bait-combs were the only ones filled in the supers. So it depends upon the conditions.

**Mr. Aikin.**—In Colorado, foundation alone fails to meet the requirements once in 14 to 20 years. That is when the flow jumps from nothing to a full flow in one to three days, so that the bait-combs are filled almost before the bees can get to work on foundation. But these conditions do not occur often enough in Colorado to make it pay to provide bait-combs on that account. When people offer me only about half a cent more per pound for unfinished sections than for extracted honey, the difference due to the value of the wax makes it more profitable to melt up the sections.

**Mr. Gill.**—There is a great deal more wax in unfinished sections than you think. This fall, in cleaning up sections, I had a lot of broken combs, amounting to 80 pounds in weight, which, when melted up, gave me 16 pounds of wax.

**Mr. Aikin.**—That would make about five pounds of wax to the superful of sections. How's that?

**Mr. Gill.**—There were a great many sections, hundreds and hundreds of them, and many were so light as to contain only about a tablespoonful of honey. They had been built on full sheets of foundation. But I am quite a friend of bait-combs, as will be seen when I tell you that I had 180 cases of honey that had been bait-combs.

**Mr. Spencer.**—A bait-section is about as clean when taken off as when it was put on, if it was cleaned before it was put on.

**H. Rauchfuss.**—That all depends upon the locality. If the bees have access to much narrow-leaved cottonwood, they will paint it red all over, and if you case that section it is not No. 1, while in other localities the bait-combs stay

clean. Again, when the flow is heavy, the bees use only wax when they would otherwise use propolis.

#### GETTING RID OF MICE IN HIVES IN WINTER.

**QUES.**—How can we get rid of mice in the hives in the winter-time?

**H. Rauchfuss.**—Don't let them in.

**Mr. Porter.**—It is not so easy in practice to have hives that are mouse-proof, and only one of my honey-houses is. Last winter I wet some wheat in honey-sweetened water in which strychnine was dissolved, dried it, and set it around in dishes. There was no damage done in the two honey-houses thus treated, and I found a number of dead mice lying around. The hives outside, in those yards, were not entered by mice, because all had access to the honey-houses. I should think I used two or three grains of strychnine to a quart of wheat.

#### PREVENTING SWARMING BY TIERING-UP.

**QUES.**—Has any one been successful in preventing swarming by tiering-up hives, thus giving more room to the bees?

**Mr. Morehouse.**—This season I managed part of a yard for extracted honey, and tiered-up full-depth bodies as fast as the bees needed more room for storing. None of the colonies thus treated swarmed in a yard that went crazy with swarming.

**Mr. Porter.**—I have been successful with this plan in running for extracted honey. But if any have been successful with it in producing comb honey I should like to hear from them.

#### POSITION OF EMPTY SUPER ON HIVES.

**QUES.**—Can more honey be obtained in a good honey-flow by placing the empty super under the one partly filled, or on top of it?

**Mr. Aikin.**—You will get more honey by placing the fresh super under the full one, but I will not guarantee that you will get any more money. The finish will not be so good. If the one already is about three-fourths full put the fresh one on top, because the bees will finish the one already started more rapidly by so doing; but when it is nearly finished change places. If the next time you look a third super should be necessary—because both of them are almost finished, but neither one entirely—then put them both above the added super; but if one is almost finished, and the other not so much, put the new super between them, with the one almost finished on top. Keep the one that is being finished next to the brood-chamber. It makes better finish and better weight.

**Mr. Porter.**—I agree exactly, especially in changing the places of the supers when one is almost finished. It is then ready for taking off in a few days.

**Mr. Gill.**—I am trying to get the most out of the business. I don't contend I can get a better finish, but I can sell more cases by putting my added supers under the old ones at any time in a good honey-flow.

**Mr. Porter.**—If you have a good flow how do you know that it is going to last?

**Mr. Gill.**—It is in the air. It seems as if one could know by feeling it. If the bees come up to condition in a rush, and the alfalfa and sweet clover begin to yield at the proper time, the honey is pretty sure to come. Have you ever noticed a "honey-day?" This last season there was nothing sticky in the atmosphere.

**Mr. Aikin.**—How many got a yield this season from sweet clover? [Six.] This year the sweet clover did almost nothing for me, and out of 100 acres of cleome I got only the first taste of cleome honey. But the alfalfa yielded the whole season through, the first, second, and third crops. There was a fine bloom of sweet clover.

**Pres. Harris.**—A man in Mesa County has three or four acres of yellow sweet clover. The bees go wild over it. He says it does twice as much as the white to build up his bees.

**Mr. Gill.**—I never saw the time when sweet clover did not yield something.

**J. B. Adams.**—I never did.

**Mr. Gill.**—Yellow sweet clover would be a boon to beekeepers. It commences to yield May 28th to the first of June. Last year it yielded splendidly. I shook the apiary within reach of it. The best swarms pretty nearly filled their hives with comb in a week.

#### SEPARATORS OR NO SEPARATORS.

**QUES.**—Can more honey be obtained in a good honey-flow by using separators in the supers or without them?

**Mr. Aikin.**—Rather more without, but no more profit.

(Continued next week.)



## Contributed Articles

### Producing Comb or Extracted Honey—Which?

BY C. DAVENPORT.

WHICH will be the more profitable for me to produce, comb or extracted honey? is a question that those starting in our pursuit sometimes ask, and as I have produced both comb and extracted honey in quite a large way for a number of years, my opinion on this question may be of interest to such. But it is a big subject—much too large to discuss in detail in one article, so it will be necessary for me to be brief, barely touching, or not even mentioning, some things that may have a good deal of influence on the matter.

It has often been said that it requires less work, skill and experience to produce first-class extracted honey than it does to produce first-class comb honey, but, in my opinion, it requires just about as much skill and experience to secure first-class extracted honey as it does the same grade of comb honey; and, as far as the work is concerned, I would rather do the work necessary to produce, say \$1000 worth of comb honey, than I would to produce the same value of extracted. It is true that there would be more work about the comb honey, but by far the largest part of the work with comb honey can be done during the comparatively leisure time of winter, early spring, and in the fall after the rush of our sweet harvest is over.

In my locality the main, or hardest part of the work about extracted honey, has to be done right in the rush of harvest. Of course, enough combs and upper stories could be provided so that the extracting could be left until after the flow, but there are a good many difficulties about this besides the large expense and storage-room required. It is considerable work and expense to take care of and keep such a large number of combs free from moth-worms during the large part of the time they are not in use. But this plan is prohibitive here, owing to the fact that most seasons our clover and basswood honey gets so thick after it is sealed that it is impossible to extract it—that is, the larger part of it does.

And, now I am going to mention something that to many may seem at least strange, if not hard to believe, which is, that, in many seasons here, weak colonies will not produce first-class extracted honey. This has been noticeable the last two seasons, which have been exceptionally cool and wet during part of the flow. I have, in my store-room at this writing, between 5000 and 6000 pounds of extracted clover honey from last season's crop. Some of this is so much inferior to the rest in flavor that I am selling it for 1½ cents less a pound. It was all extracted at or about the same time, and the only cause of or reason for its being inferior is that it was taken from weak colonies. It was kept separate, for the difference, when extracting, was very noticeable. The honey in the combs, taken from strong colonies, would be so thick that it was hard to throw it out. It was also hard to uncapp it, for the honey was so thick and waxy that the knife would gum up badly before one side of a comb was uncapped. But the honey in these combs from weak colonies was altogether different, though they were left on the hives until well sealed. A knife would work on these combs all day without gumming up, and it took but a few turns in the extractor to throw the honey out, and while this honey was very thin, compared to the other, it was not sour, but it had a different and inferior flavor.

Now, another fact that may seem strange, is that this thin honey is now candied so solid and hard that it is almost impossible to dig it out of an open can, while the other is just beginning to granulate.

Although I am straying from my subject, there is another thing I would like to mention. Last season I did not order enough 60-pound cans, so I used a large number of round dairy or milk cans; these hold about 50 pounds, and I prefer them to the square cans for my retail trade, but as they have open tops and loose covers they do not answer to ship honey in.

I sent samples of this second-grade honey to many of my customers at a distance, and received a good many more

orders than I expected, probably on account of its cheapness. In order to get it into shipping-cans I had to heat it, and as I thought it did not have much fine flavor to lose or injure, I just set these cans in a large tank of boiling-hot water, and kept the water at or near the boiling point until the honey was melted; and this treatment, instead of injuring its flavor, improved it greatly, according to my own taste, as well as a number of others to whom I gave samples of the two kinds. Afterwards I treated four cans of the best grade in the same way, in order the more easily to get it into shipping-cans, and nearly, or quite, ruined it for table use; and I find that it is almost impossible for me to liquefy this best grade slowly and carefully enough but what its flavor is injured.

Now, just what should make this difference in honey gathered from the same fields at one time, by the same race of bees, I do not fully understand. I have often noticed the difference in honey gathered by weak and by strong colonies other seasons, but I never had it occur in such a large way as it did the last two seasons. But this I can easily account for, because I never had so many weak colonies before, and never before in my time was there such cool, wet seasons as the past two were.

The way I account for the matter is this: In a wet, cool season these weak colonies are not able to generate heat and thoroughly ripen honey as it should be.

And now, while on this subject, I should like to say that, in my opinion, no extracted honey ever was, or ever can be, produced in commercial quantities that is equal in flavor to first-class comb honey. I believe that where bees are provided with ready-drawn comb to store in, they fill and seal these combs before the honey is as well ripened and flavored as would be the case if they had to build their own comb and store more slowly. But there is a great deal I don't know, but what I would be safe in saying is, that the largest part of the comb honey that is marketed is far from being first-class.

Another thing that might be considered against the production of extracted honey, is that here a large percent of these colonies, especially if there is much black or German blood in the yard, will have to be fed heavily for winter. I have a large and growing trade worked up in extracted honey among a class of people who are not able to use much comb honey, and, anyway, at the relative market prices I can make more money from a large yard, by producing both comb and extracted than I could from either one alone; so, unless there is some radical change I shall continue to produce both kinds—about "alf and alf," as the Englishman said. Southern Minnesota.



### Packing Bees for Winter—Other Matters.

BY EDWIN BEVINS.

I HAVE nearly completed the work of packing for winter my 168 colonies of bees. It is quite a task to pack so many in the way I do, but I do not believe there is any way more successful for this latitude. It is simply to put an empty super on the hive, then fill with a chaff cushion, and then set up an outer case which allows a space of about 4 inches between the sides and the back ends of the hives, which space is filled with wheat or cut straw packed firmly.

Some bee-keeper said in the American Bee Journal not long ago, that he left the section-holders in his supers when packing for winter. Let me say, that I think his bees would be better off with no bee-space between the frames and packing.

#### DOUBLING UP COLONIES.

I did not start to write this article with the idea of giving anybody advice, but I will say a few words in answer to the inquiry of F. P. Briggs, on page 765. In doing so, however, let me say that I make no claim to the title of veteran. I have doubled up colonies of bees every year, and at all times of the year excepting in winter, and have one invariable way of doing it. When, for any reason, I wish to unite two colonies, I choose a time when the bees are all at home—either a cool day, or very early in the morning, or when the bees have become quiet towards evening. Smoke the bees of both colonies a little at the entrance, remove the cover of one hive, smoke the bees of it a little at the top, put two thicknesses of newspaper over the frames, punch a little hole in the paper, then take the other hive from its bottom-board and place it on the hive from which the cover was removed. The bees slowly eat the paper away and unite without any fuss. I never could be induced

to practice a method that takes more time, and this has always been successful with me.

#### PERFORATED SEPARATORS—SUPER-ROOM.

Now, I want to say to Mr. A. F. Foote, page 767, that I have used sawed separators with holes in them, cut with a sharp point of a jack-knife, quite extensively for two or three seasons. If the holes are too large the bees will sometimes bulge the face of the sections opposite the holes; if the holes are too small the bees will endeavor to fill them with propolis. Occasionally I have found sections attached to the separators, but not many. My opinion is, that the holes are not much of an advantage anyway, and no great disadvantage.

In answer to his question whether it pays to use separators I would say, Use them, every time. Owing to a shortage of the supply this season I was compelled to have a good deal of the honey stored in sections without separators, and want no more of it. No, sir, you did not give your bees plenty of super-room. My bees, this season, built lots of comb where it should not have been, and all because of lack of super-room. I could not get sections when needed, although I kept telegrams and letters flying in every direction, and the consequence was that supering to a degree that would answer the requirement of the bees was simply impossible. My losses on this account were several hundred dollars. I had to traverse the yard day after day, from early morning until sunset, finding where the pressure was greatest, and contriving means for temporary relief, then go to bed and lay awake a good share of the night trying to think of some new expedient, and solacing myself with the hope that the mail would bring me, next day, a letter from some supply-dealer that he had sent me something. But I had to see many days come and go by with many hives and supers filled to the brim right in the midst of the heaviest honey-flow known for years, and not a thing to give the bees to store in.

#### SPRING FEEDING OF BEES.

I wrote, last spring, that I was feeding 100 colonies of bees. At the opening of the honey-flow, late in May, the number had been reduced to 90 colonies. The losses were due mainly to loss of queens, and consequent doubling up. One colony I lost by starvation in spite of my watchfulness, and one colony I lost by fire.

Right here, I will pause to say to Mr. Hasty that the let-alones are welcome to smile the year around at the way I fed my bees last spring. In consequence of this feeding I had rousing colonies of bees ready to do big work in an unlimited field carpeted with white clover bloom.

#### SWARMING AN EVERY-DAY OCCURRENCE.

Swarming commenced about June 1, and was an every-day occurrence from that time until the middle of July. From 1 to 15 swarms had to be cared for every day, and there were 250 in all. The expedients for caring for all of these swarms were as many as those for keeping the hives supered with insufficient supplies, but my losses were insignificant when swarms would issue, and sometimes 2 or 3 would issue at a time, and at a time when there was not a thing in sight to hive them in. Persons around me would be flying around in an exciting way asking, what I was going to do now. I would just say to one, you do this, and to another you do that, and we'll take them in, and we did. The 250 swarms were hived in a little less than 90 hives. The rush and roar of these great masses of bees in the middle of a hot afternoon was terrific. A timid person had no business in the yard.

Of course, many of the colonies thus made proved to be queenless, and these queenless colonies have been united with other colonies. Many times I would find a ball of bees soon after hiving 2 or 3 swarms together, and then I would release a queen, cage her under a glass tumbler, give her a bit of honey, put a hairpin under the edge of the tumbler, and keep her until I saw a colony where the bees seemed to want a queen.

One morning, rather early, I thought the cry came that a swarm was clustering on a small branch of a small plum-tree down at the lower end of the yard. I went down with a hive, and found the bees so low down that I set the hive on the ground and shook the bees from the limb. Some went into the hive, and some returned to the limb, but before half of the bees could be gotten into the hive, another swarm clustered on the same limb, or mingled with the bees that were entering. This thing was kept up until 10 swarms had come to the same spot. I would fill a hive with bees, take it away, and then fill another. I think I run the 10 swarms into 7 hives.

The freaks of swarming where there was so much of it are too numerous to mention. August 25, a large swarm was seen clustered in a peach-tree. There was just one hive on the premises not in use, but not a single frame or a bit of foundation, so I borrowed 3 frames of sealed honey from other hives and hived the bees on these, letting those that could not cluster on them cling to the sides of the hive and the under side of the cover until frames and foundation should arrive, which I felt sure would be next day.

The next day another large swarm issued, and was said to be clustering where the swarm had clustered the day before. I went to see what could be done, and found the bees going in with the swarm of the day before. What bees could not get in the hive clustered between one side of the hive and a board I had leaned against it for shade. When my supplies came, instead of filling up the hive with frames of foundation, I borrowed more frames of honey from other hives, filled the hive with the swarms with these, put on two supers of sections, and set this great force to storing comb honey. Then the bees that had loaned me the filled frames were set to work drawing out foundation.

I have another colony which issued as a swarm early in September. I am preserving it because I believe it to be one with a young queen, and young queens do good work the following season.

I will remark before I forget it, that bee-escapes were not needed in the height of the season. Supers could be set on end anywhere in the yard, and the bees would gradually leave them, and other bees would pay them no attention.

#### BEST SIZE OF HIVE.

In the infancy of my bee-keeping days I rashly promised that I would some time give the readers of the American Bee Journal my opinion of the 8-frame dovetail hive. I am reluctant to fulfill the promise because of the fact that comparisons are sometimes odious. This I will venture to say, that I am still making hives, but am not making any, or many, of that size. If I were a comb-honey producer exclusively, like Dr. Miller, and were a younger and stronger man, I might revise my opinion of it. It takes too much watchfulness and too much work for me. I used a good many of them this season, and practiced contraction with some colonies, and got some splendid work done in these; but the wintering is where the shoe pinches. I am now making the 10-frame dovetail and the Dadant-Blatt hives for my own use.

#### RESULTS OF THE SEASON OF 1903.

Of the financial results of the season's operations it may be well to observe some reticence. The out-goes have been larger, and the incomes smaller, than they would have been if my foresight had been as good as my hindsight. Probably 7 tons of honey,  $\frac{2}{3}$  comb, is my share of the plunder.

#### GETTING UNFINISHED SECTIONS CLEANED OUT.

To Mr. Whitney, who criticised my way of getting unfinished sections cleaned out in the fall, I will respectfully say, that it seems to me that he is not in position to be a fair critic, as he says that he had never tried it in the fall. I have had the work done this fall in the manner before given, and with perfect success. This season I used the uncapping-knife on all sections that had sealed honey, and I was surprised at the rapidity with which the honey went below. I have proved this season that the firmer chisel is an awfully good thing in the bee-yard, but I do not use it for an uncapping-knife.

I wish Mr. Whitney lived near me, for I have scripture warrant for the belief that we would soon speak face to face.

Decatur Co., Iowa, Nov. 30.



## Successful Wintering of Bees on the Summer Stands.

BY ROBT. A. HOLEKAMP.

**A**S under "Editorial Comments," contributions from readers are requested, I will describe my way of wintering bees on the summer stands, which has proven a success with me, and may be of interest to some who are beginning in bee-culture.

In the fall, when the supers are off the hives, I examine every colony by lifting the hive, and if I am not certain that an 8-frame dovetailed hive weighs at least 50 pounds, or a 10-frame dovetailed hive 60 pounds, I put it on the



scales, and if the weight is not up to my requirement I mark the weight on a slip of paper, which is put under the brick on top of the hive. I also mark it down on a sheet of paper opposite the number of the hive. When I did the last extracting I set aside a sufficient number of full combs for feeding, and I now go over the hives and give those that are short in weight, in these combs, sufficient honey to bring them safely through the winter. After this is done I lay a Hill's device of my own construction—I call it a bridge—over the center of the frames. These bridges are made out of 6 pieces of plastering lath, each about 10 inches long, by laying two pieces flat down parallel to each other about 6 inches apart, and nailing the other four pieces across, with their ends flat on the first ones about  $\frac{3}{4}$  of an inch apart. I then put an empty section super on the hive, cover over the bridge a piece of cotton sheeting, or any other cheap material. This piece of sheeting is of a size to cover the bridge fully and the frames in the hive. On this sheet I lay a cushion made out of an oats sack filled with leaves or corn-husks. I now place the winter cover over the hive, and the bees are safe for winter.

I have some winter-cases which I bought from supply-dealers, which I put together carefully, puttied them up and painted them, but the covers soon cracked and leaked. I then covered them with tar-paper, and since then I have no more winter-cases. I now make winter-cases usually out of empty shoe-boxes, which are made of thin, light, matched lumber, and which I can buy at a low price from shoe-stores. I make them of a size to fit easily over the hives, and to cover them down to about an inch from the bottom-board. I cover the top case with tar-paper. If these cases are handled carefully, and are stored away during the summer, the paper will last for years.

My reason for placing a piece of sheeting over the frames before I put the cushion on is this: The sheeting prevents the bees from gluing the cushion to the bridge and frames. If I wish, for some reason, to lift out the cushion I can do this without disturbing the bees.

When there is a nice, sunny day in winter I go through the apiary, lift the winter-cases off the hives, and let the sun shine on the cushion. It will dry out any dampness which may have accumulated in the hive, and if I desire to turn the cushion I can do it.

Last year I lost a few colonies by mice eating the honey out of the hives. I had been away from home, and during this time the mice did the mischief without being noticed. To prevent a recurrence of this, I am going to put entrance-guards on all the hives this fall.

I have noticed complaints in the bee-papers about leaky hive-covers. For winter covers I have found the tar-paper to be very satisfactory, it being also inexpensive.

My colonies are all very strong this fall, as I succeeded in preventing swarming this year, but I have had in other years some very weak colonies, and have wintered them successfully in the above-described manner.

St. Louis Co., Mo., Nov. 16.

## Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

### The Smoking Habit Among Bee-Keepers.

In the Progressive Bee-Keeper is found the following paragraph written by Somnambulist:

"G. C. Greiner says: 'I am not a very heavy smoker, but when I expect a very hot time I always light it, and lay it in a great measure to my pipe (and gentle treatment) that I can handle my bees almost entirely without a veil, and mittens I never use.' Small comfort this to most lady bee-keepers."

Now, Somnambulist, I must enter a mild protest. When you say, "Small comfort to most lady bee-keepers," that's a pretty strong insinuation that at least some of them use the nasty weed. Is there a single lady bee-keeper in the circle of your acquaintance that does? Did you ever hear of one? I didn't.

Furthermore, your saying it is small comfort to most of the lady bee-keepers sounds too much like saying it will be

large comfort to most of the gentlemen bee-keepers. Please call up in your imagination a procession of gentlemen bee-keepers and see how many of them are given to the tobacco habit! Don't you know that at conventions of bee-keepers it has been a very noticeable thing, during the recesses, that scarcely a man of them was ever seen smoking? I'm pretty sure you don't smoke yourself, for if you did you might set the house on fire some night when sleep-walking! Besides, I don't believe a man with a pipe in his mouth would always write in so clean and interesting a manner as you do.

### A Hard-Working Sister in Oregon.

I have no bee-keeping sisters in this neighborhood, and it is only through the "Sisters' corner" that I find what other women are doing with bees. I could tell Sarah J. Griffith (page 680) that I, too, make hives—in fact, my hands are more used to the kind of work she describes than they are to the use of the pen, as you no doubt can see. Although I have only about 30 colonies of bees, I do all the work about them myself. As I am in a little out-of-the-way place in the mountains, it is not always easy to obtain bee-supplies. I usually get good crops of honey, which is never sold for less than 12½ cents per pound; frequently it brings 15 cents. The past season was the poorest for honey that I have known since I kept bees, which has been about 15 years.

MRS. R. M. HORNER.

Marion Co., Oreg., Dec. 6.

### "Peddling Out" Wives Among Arizona Bee-Keepers.

On page 12, Mr. Hadsell seems to object to what is said on page 746 about wives being "peddled out" to Arizona bee-keepers, and Mr. York lays upon me the responsibility of the suggestion. It doesn't belong here, Mr. York. I merely christened the suggestion—and I pass along the responsibility to where it properly belongs—to the man who wrote that clipping on page 746, where he says: "J. Few Brown is asked to send a car-load of Virginia wives to the bachelor bee-farmers of Arizona." If that doesn't suggest "peddling out," I don't know what would.

It was to that clipping that I referred, and not to what Mr. Hadsell says on page 12, which is quite another matter, and of which I knew nothing. What he says is all right, unless it be in the last paragraph, which is open to more than one interpretation. If Mr. Hadsell's wife was an old acquaintance, and followed from Pennsylvania the man who was too busy to come back after her, she did entirely right. All honor to the girl who has grit enough to follow to the ends of the earth the man whom she loves! But if she went all the way to Arizona to marry a man whom she did not previously know—well, I've already said all I need to on that score.

I must also enter a protest against the Editor's footnote, if he means that an Eastern girl "might do well" to go to Arizona to marry an unknown man. But I don't believe he means that; that "final trip" rather infers that the man had thought enough of her to make one or two previous trips her way.

[We—we—that is, we—some of us—we—we—got hit pretty hard by Miss Wilson, didn't we, Mr. Hadsell? We "might do well" now to turn this whole subject over to "Our Homes" department of Gleanings in Bee-Culture, and let A. I. Root "figure it out," and may be he can get the right answer to it. As Mr. Hadsell and the writer are not at all interested in getting married (and Miss Wilson, herself, has persistently stood out against it for—well, some decades!), perhaps we'd better let the Eastern bachelor girls do the hunting themselves for the Western bachelor bee-keepers, if they want them for husbands. Or, if the latter want any of the former, why in Grand Canyon don't they take a trip to the East in the winter-time and help themselves—to what is "left" down there?—EDITOR.]

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## Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B Rural, Toledo, Ohio.

### HATCHING OF EGGS OF BEES.

Barely possible (if Dzierzon says so) that in exceptional circumstances an egg might be hatchable two weeks after being laid. Wish I knew more about the *usual* time of becoming worthless. I'll guess it at four days—or one day of utter neglect—and let somebody who knows better poke me up about being so green. Also, I entertain a suspicion that, sometimes, from drying, eggs become non-hatchable in much less than a day—perhaps not dead absolutely, but might as well be. You see, if it was usual for bees to keep eggs two weeks, we should have after-swarms issuing 14 plus 16–30 days from prime. Page 763.

### GROWING OF CATNIP.

Thanks to J. W. Johnson for his catnip experiment. Nine and a half acres seemingly well put in in spring just died out under a not-over-severe dry-spell. Presumably the case of a spring without any dry-spells might bring an exceptional success. To be feared that an extra-severe drouth in the fall might also mean failure. Well to note that it doesn't bear cutting well when little—the half acre among the weeds lived in spite of spring drouth, while the big field was dying—but died incontinently when cut with a mower. From the natural habits of the plant we may conclude that what it hankers after is partial shade—a thing we can't well give it on a large scale. Page 766.

### GNAWING WOOD SEPARATORS.

"Some" on gnawing, I should call A. F. Foote's bees, to take down wood separators a half inch in one season. Give 'em some tin to break their teeth on. Page 766.

### CHANGING THE COLOR OF HONEY.

Interesting to see that they succeeded in making a sample of dark extracted honey light with three hours of exposure to ozone. But the coloring matter in honey is not always the same thing chemically. There's the carbon (soot) in the honey of a big city; and it's not only possible, but probable, that different plants put in different substances as color. One experiment is not quite full assurance of the process working on other chemicals than it has been tried on. Sunlight has been found to work well on the soiled cappings of comb honey; wonder how it succeeds—or might succeed—with extracted. Page 771.

### GIVE CHILDREN SWEETS—PLENTY OF HONEY.

I'm not much on Dowie, but he's right on children and sweets. Have the candy made under your own supervision, and so be sure there is no harmful thing in it, and then keep them from eating too much by having it on the table every day. I don't think we do well to do much scolding about candy and jam. Let's tell the truth about them, and say give the children the choice between candy and honey—reasonably plenty of both. As bee-keepers, let us meet the competition of pure candy in diamond-cut-diamond spirit. Undoubtedly children (and their elders, too) very often suffer from too large a quantity taken into the stomach—and then the blame is put on whatever tastes best. That's not a fair conclusion, though very natural. Neither is it fair to lay it down that a health-food must of course be something that does not taste very good. Not creditable to the Creator if the senses he has made always err in judgment of what is good and what is not. Page 772.

### CARBON-BISULPHIDE AND MOTH-KILLING.

So if you get the under-floor space of your dwelling permeated with carbon-bisulphide, in your moth-killing efforts, you have to pay for it with a long spell of bad smell while it takes its own time to work out again. Easy to see; but, perhaps, not so easy to foresee. Page 783.

### NICE, CAPPED HONEY SOURING IN THE HIVE.

When nice, new, capped honey sours in the hive (and I think it's not such an uncommon affair), it is usually because the colony has swarmed, and left it uncared for in hot, damp weather—moisture also steaming up from thou-

sands of brood below. I incline to "bet a cooky" that J. T. Reno's bees, page 783, swarmed and went to the woods when he knew nothing about it. And sour honey, if you don't lose it you'll probably do worse than lose it. Same *might* be true even in case you try to make vinegar of it.

### SUGAR-HONEY IN HAWAIIAN ISLANDS.

Here's a fine kettle of fish—and what are we going to do about it? In the Hawaiian Islands bees can make sugar-honey right from the cane-fields and sugar-mills—and mix it with floral nectar brought in at the same time. Page 783 notes the arrival of 121 cases of such honey. May be more a scare than anything else, but still a report to set one thinking. Not at all impossible that the report may be a mean and groundless suspicion of some extra-fine honey. Imports into a new field oft before have encountered just such. And if the stuff were deadly poison it wouldn't scare our folks half as readily.

## Some Expert Opinion

"In the multitude of counsellors there is safety."—BIBLE.

### The Best Size of Sections.

If for some reason you were to start in anew to keep bees, and were obliged to get an entirely new outfit—

**Ques. 4.**—What section would you choose? Why?

N. E. FRANCE (Wis.)—4x5 plain.

WM. ROHRIG (Ariz.)—I do not produce comb honey.

O. O. POPPLETON (Fla.)—I do not produce comb honey.

GEO. W. BRODBECK (Calif.)—4x5x1½. They make the best display for the quantity.

MRS. L. HARRISON (Ill.)—The regular one-pound section, that fits into our surplus-cases.

J. M. HAMBAUGH (Calif.)—Whatever the markets call for. A more ready sale is my reason.

C. DAVENPORT (Minn.)—I don't know, but one thing I do know is, that I am in favor of a standard of some size.

R. L. TAYLOR (Mich.)—4¼x4¼, 7 to the foot, 4-piece. Because they are the neatest, hold the right amount of honey, and suit me best.

PROF. A. J. COOK (Calif.)—I think I prefer the one-pound, one-piece section. The plain section with fence also has much to recommend it.

G. M. DOOLITTLE (N. Y.)—One-pound nailed section. Because stronger, and of a more symmetrical appearance than the 4¼x4¼ section.

EUGENE SECOR (Iowa)—Perhaps the tall ones, but I am not quite sure that they are any better. The 4¼x4¼ makes the finest shape for table use.

P. H. ELWOOD (N. Y.)—4x5 for unglazed sections; 4x4½ for glazed sections; 1½ inches thick. Bees will store more honey in a large section.

DR. C. C. MILLER (Ill.)—4¼x4¼x1½, with insets, open top and bottom. They are most nearly standard of any, and suit my trade better than anything else I have tried.

C. P. DADANT (Ill.)—The 4¼x4¼. Because it fits well on the hive mentioned, and has proven satisfactory, while all other sizes are more or less fancy, and have not been thoroughly tested.

G. W. DEMAREE (Ky.)—I prefer the "open" bottom and top section. Why? Because they can be worked with or without separators, and are adapted to the "tiering system" without any additions.

ADRIAN GETAZ (Tenn.)—Whatever the market would prefer. Here, at the present time, the 4¼x4¼ is the one adopted. The plain section with fence separator, for the reasons stated in the previous question.

JAS. A. STONE (Ill.)—The plain section, 1½ inches wide. Because I find the bees fill closer to the wood than they do in the wider section, and therefore about the same weight as the 1½ section, being in most cases right at a pound.

REV. M. MAHIN (Ind.)—That is a pretty hard question for me to answer. All of my experience is with a section 5x6x1½, and without separators, would have little difficulty in casing the honey. I think bees will occupy large sections more readily than small ones.

L. STACHELHAUSEN (Tex.)—I would use 4x5 sections, if I could get the same price as for the standard, 4¼x4¼ sections. It is somewhat easier for the bees to build combs in larger sections. We have more sections in one super, consequently save some handling.

C. H. DIBBERN (Ill.)—I have used the whitewood 4-piece 4¼x4¼x1½ for the past ten years, and prefer them to all others, unless it is

the same size plain section. The only objection I find to the latter is the additional cost of fence separators; then, too, I think the bees are much more inclined to brace the combs to the slats unless they are made of plain sheets with cleats, as in the fences.

E. E. HASTY (Ohio)—I would not be strenuous about this, but think the old-style pound section, perfectly square and  $\frac{3}{4}$  wide, would be my choice. "Feared" of the prevalent moral itch—wishing to sell for the highest possible price less honey than there seems to be.

Mrs. J. M. NULL (Mo.)— $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{4}$ . Largely for the sake of uniformity. A change, if in size of section, means several other changes. Remedies for the reduction of size of the pocket-book are not in demand among bee-keepers. No need of anti-fat in connection with them.

E. WHITCOMB (Nebr.)—The Danzenbaker. Because it looks best when filled properly. In order to excel in producing honey it is good policy to cater not only to the eye of the customer, but as well to his appetite. An article that looks well is liable to sell better, and to taste better after it is sold.

Dr. J. P. H. BROWN (Ga.)—I would use the  $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{4}$  one-piece section if I could get them. Because they suit the present market—the people are familiar with this size. Years ago, before dovetailed sections were made, I used a nailed section  $4\frac{1}{4} \times 5\frac{1}{4}$ , that was very satisfactory. Bees will go to work more readily in a large section than in a small one.

E. S. LOVESY (Utah)—I would use the regular  $4\frac{1}{4} \times 4\frac{1}{4} \times 1\frac{1}{4}$  sections, because they fit the section-holder, and can be transferred with little time or trouble from the super to the shipping-case, as they require little or no cleaning. The supers can be tiered up to any number desired, and while the bees have free access through them, they can not get to the outside of the sections to stain them, hence they look new and as clean as when they were put into the supers.

J. A. GREEN (Colo.)—If it were not for the inconvenience sure to arise from using an odd size, I would use a section  $4\frac{1}{4} \times 5 \times 1\frac{1}{4}$ . My only reason for changing from the  $4\frac{1}{4} \times 4\frac{1}{4} \times 7$  to the foot, which is the size I use now, would be to increase the weight of the section a little, which would suit our Colorado market better. I would not use a section thicker than  $1\frac{1}{4}$  for the regular style, or  $1\frac{3}{4}$  for the plain section.  $4 \times 5$  is not heavy enough, and is an inconvenient size in a hive of regular length.

R. C. AIKIN (Colo.)—My choice is a  $4 \times 5$ , and  $1\frac{1}{4}$  thick (wide), scalloped  $\frac{3}{4}$ , and clear out to the side-bars; fences to be full-depth of section, thus the scallop is necessary to allow easy bee-passage, and will also give better finish to tops and bottoms because the width of top and bottom is the thickness of finished comb, and it looks better both in and out of the case. A comb being built will naturally be built downward more rapidly than sidewise, so a  $4 \times 5$  section will be filled out in the lower corners quicker and better than the wider, shallower section. It also enables me to use brood-frames of same depth, and still not get them too very shallow; thus, so far as the super-body is concerned it is identical with brood-chambers; I can use either one for the other. This year (1933) I had about 5000 pounds of comb in  $4 \times 5$  sections, and it cleaned easier and was nicer, and averaged heavier than old-style sections, and as they were according to the above description, they had to be made to order.

## Dr. Miller's Answers

Send Questions either to the office of the American Bee Journal, or to Dr. C. C. Miller, Marengo, Ill.

### Hives Painted Inside and Outside.

Will paint on the inside of hives be an injury to them?  
In remodeling our church, of which I am pastor, I obtained quite a lot of clear pine lumber which had been in use for pews for 34 years, and had been painted repeatedly on both sides. I have thought of making it up into hives. Will so much paint be offensive to the bees?  
MINNESOTA.

ANSWER.—No, bees will not object to paint inside the hive unless it be too fresh. The lumber you have will be all right.

### A Peculiar Colored Comb Honey.

I am an old man, and have been in the bee-business for 50 years. I have now 5 apiaries, my home apiary containing 26 colonies. The out-apiaries are within a radius of 3 miles. I run for comb honey only.

The past season I had a new experience with my home apiary. I found 200 or more sections of a different grade of honey from any that I ever saw before. It is of a purple shade; it came in with the white clover. I first gave credit to milkweed, but had to give that idea up as it came after milkweed was gone. My home customers were afraid of it. It was of a fine flavor, something on the order of red clover.

Can you give me any light on it? There is a field of alfalfa within half a mile of me, and has been for 2 or 3 years. From what I have learned from reading, there is no honey in alfalfa this side of the

Mississippi river. If that is so, where did that purple honey come from? Is alfalfa honey a bluish-colored honey? I have never had the privilege of seeing any. If it is not alfalfa, what can it be? I never had anything like it before. My out-apiary did not give a single section of that color.  
NEW YORK.

ANSWER.—I can't even make a guess. Can any one help us?

For a long time it seemed to be true that alfalfa yielded no nectar east of the Mississippi, but lately reports have been made of its yielding in Wisconsin, and it is possible that it may yet become a good yielder in general east of the Mississippi. The honey from it, however, is not a purple shade; it is as white as white clover, if not whiter.

### Miller Brood-Frames—Foundation—Splints.

1. Where can I get the Miller brood-frames? I have never seen them quoted in the catalogs?

2. What weight of foundation do you use in them, light or medium brood?

Do you use the splints on both side of the foundation?

ILLINOIS.

ANSWERS.—1. You can probably have them made by any manufacturer by asking for "Miller brood-frames," and possibly you could get them through any supply-dealer.

2. So far I have used medium. Possibly lighter would work all right.

3. Only on one side.

### Basswood Lumber for Hives.

I am well pleased with the American Bee Journal, and think it is sound in "doctrine." But I was nearly knocked out by one of Dr. Miller's answers, on page 763 (1903), where he says basswood swells, shrinks, and warps so that it is not fit for any part of a hive. And this right on top of my experience with some 30 hives made of cottonwood and basswood, that I have been using for 6 or 7 years, and never found any fault with them. In fact, I think so well of them that I have just had a lot of the same lumber sawed to make more. I make my own hives, 10-frame size, and run for extracted honey; I buy frames in flat. If Dr. Miller will try a few hives and make them of boards a full inch thick, after being seasoned and dressed, nail them together properly, then give them 2 or 3 good coats of paint; I will stand good for the result. My objection to pine is, it is not thick enough, and costs about three times as much as the other. I advise my Missouri friend to use basswood in spite of Dr. Miller's answer.

MISSOURI.

ANSWER.—I am very glad if you can use basswood successfully, especially where it costs so much less than pine. It is quite possible that I am "away off" in thinking my little world is the whole of the world. I have tried basswood for brood-frames, and they twisted badly. Mr. Niver says it is different with him. Possibly the place in which basswood grows makes a difference, and possibly the age of the trees makes a difference. I certainly wouldn't want anything about a hive made of such basswood as I have tried. I wish we might know the whole truth about it.

### Honey Turning to Wax—Foolish Notion.

Enclosed find a clipping from a newspaper. I would like to know the exact truth in it. My opinion is, that the honey Noah took into the ark would not yet be beeswax.  
NEW YORK.

The clipping referred to reads as follows:

"Honey will turn to wax if left untouched for some years."

ANSWER.—I am entirely of your opinion.

### Forming Nuclei.

1. I have nearly all the standard apiarian authors, and have read considerable. I have nearly 100 colonies of bees, some Italians, some Carniolans, but mostly black or native bees. What I want to learn is about forming nuclei in order to rear several Italian queens with which to Italianize my apiary. I will outline a policy, and then you can kindly give me your opinion and comments.

Take No. 1, June 1. It sends out a swarm; while it is clustered I prepare a hive and put them into it, and set them by the parent hive. In the meantime I have prepared a suitable bottom-board on which to set the parent hive, as follows: By putting a bottom strip  $\frac{3}{8}$  inch all the way around it, on which the hive is to set, then saw out little pieces of the strip for entrances for 3 different nuclei in the same hive, by adding one or more division-boards. Then I remove the hive from its bottom-board and put the new one in its place; then, before placing the hive on it I go through it and divide the frames with adhering bees, so as to give 3 frames to each nucleus, with a queen-cell to each. Then I put the 3 brood-frames in one department, and then add a division-board, then 3 more frames, bees and all. When the hive is set on the prepared bottom-board there will be an entrance already made by sawing out a piece of the bottom strip  $\frac{3}{8}$  inch deep, and each nucleus will have a separate entrance; if two nuclei only, there will be an entrance at each end, but at opposite ends. If 3 nuclei in one hive, I will have an entrance at one side, and one at each end, say 4 or 5 inches wide, and  $\frac{3}{8}$  deep, or whatever is the thickness of this bottom strip; the division-board to be tight, coming smooth to the ground floor and at the ends, and even with the top edge of the hive, so the bees can't pos-



sibly mix. Then cover over the top, first with a suitable piece of some kind of cloth. (I cover all my hives with something under the wooden cover.) Then as soon as these queen-cells hatch out, and they are fertilized and begin laying, I can dispose of them as I please—introduce her to a colony of natives by removing first their queen and then add another queen-cell to this same nucleus, and continue as long as desired the same process, keeping an eye to removing the brood when it accumulates too much in this nucleus.

All my hives now are Langstroth size, with Langstroth frames. I have a few, however, of my old pattern, the frames of which are 14x8 $\frac{1}{2}$ , that I thought of using for nuclei especially, instead of the standard size. But here develops one trouble in that case: Suppose colony No. 1, that we have been discussing thus far, is in a standard-size hive, and it sent out a swarm, and I propose to form a nucleus out of the parent colony after it has sent out a young swarm. In that case won't I have to convert the colony (although of standard size) into nucleus form, as above mentioned?

2. My apiary is located in an orchard, and faces northeast, and is north from my dwelling, say 100 yards. I desire to place 5 Italian and one Carniolan colony south of the residence, facing southeast, with the dwelling and some large trees between them and the apiary generally, so the natural flight of these will be southeast, and that of the general apiary northeast. Out of these 5 Italians and 1 Carniolan I wish to rear all the queens with which to Italianize the whole apiary. Do you think these 6 colonies will furnish drones sufficient? and will those drones not be most likely to meet those young queens on their wedding-flight before the drones of the apiary would, with this condition of things? While I know it is not a certain thing, by any means, would it not be *very likely*, and somewhat safe, to think the drones of these 6 colonies would meet the young queens first?

3. Could nuclei be successfully formed out of the young swarm that came out of hive No. 1, as soon as it can be hived, if so desired? Which of the two is the best to form nuclei out of, the parent or the young colony?

4. Could you successfully form nuclei out of a colony that has not swarmed, but is getting ready to do so, by removing the old queen and distributing the combs as above outlined, supposing, of course, they have built queen-cells?

5. Now comes the most important question to me of all. You understand by now the situation. The 5 Italian and one Carniolan are by themselves, separated by 100 yards from the apiary proper, and that I wish to rear all my queens from these with which to requeen

and Italianize the entire apiary. Now, will you kindly outline a plan—the most practicable for a man not exactly a beginner, but one along in the junior or sophomore class in bee-culture, and one who craves to graduate an up-to-date apiarist, some time in the future? In this last question I won't make any suggestions, but listen to you, and won't confuse you by asking any more questions on other subjects in this letter.

MISSISSIPPI.

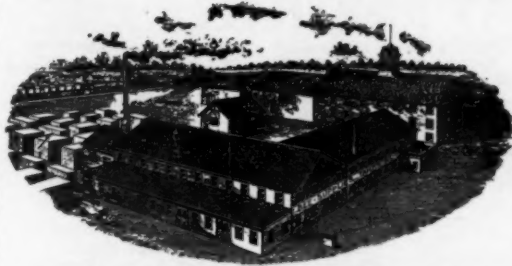
ANSWERS.—1. When you put your nucleus hive on the old stand, the probability is that the nucleus entrance that comes nearest the old entrance will receive so many bees that the nuclei in that apartment will be undesirably strong. You may do better to set your nucleus-hive on a new stand, and put the swarm on the old stand. With this modification the plan ought to work satisfactorily. I don't see, though, how you can carry out the plan by using frames of different size in your nuclei.

2. With a reasonable amount of drone-comb in the hives, the six colonies would furnish an abundance of drones; but I'm afraid you're counting too much on position. I don't know just what the chances would be, but I should expect numbers to count for more than position. But you could make the chances good by encouraging drones in the six colonies (better use one for queens and the others for drones) and suppressing drone-comb in all others, *providing* no other drones are within a mile or two.

3. You will not find a swarm a very good thing out of which to form nuclei; the old colony is much to be preferred.

4. Yes, by making such a colony queenless for two or three days it could be nicely divided into nuclei; only there would be a preponderance of bees at the point where the old entrance was. You might modify it in this way: When you find queen-cells about ready to seal, take the queen with a frame of brood and a frame of honey together with adhering bees and put in a hive on a separate stand. Two to five days later take away the old hive and form your nuclei in a new place, and let the hive with the queen take the place of the hive on the old stand.

5. The plans outlined in 1 and 4 ought to work well, and these plans being your own gives them some advantage. If I should suggest anything else it would only be to repeat what I have given in "Forty Years Among the Bees," which you say you have, for I really don't believe that the locating of those six colonies at a distance of 100 yards cuts any figure in the case, nor the directions in which the entrances face; so I should proceed the same as if all were in the same apiary.



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### FROM MANY FIELDS

#### Good Season for Honey.

I have had a good honey season this year. I started with 16 colonies, and increased to 23 by natural swarming. I have taken off 4220 pounds of extracted honey, all of which I have sold to my home customers.

LEWIS SCHMERTMAN.

Will Co., Ill., Jan. 9.

#### Egg-Hatching Humbug on a Colony of Bees.

Simply putting hens' eggs over a colony of bees and not having them hatch would not, in every case, prove that the whole pretense of the possibility of incubating hens' eggs by bees is a delusive lie, concocted out of nothing but a guess by some one who knows but little or nothing about the incubation of chickens, or bees either. For one missing link in the business would spoil the whole chain; and concerning the business, "one fact is worth a great deal of theory," so I will try to submit such a fact.

I resolved that I would not be rash in my conclusions, but I would give it a fair test. Now, I said, "If hens' eggs can be hatched by the warmth that rises from a colony of bees, I think that it would, evidently, have to be under the most favorable circumstances, and I resolved to give it the advantage of every possible circumstance; and I claim that the Common-Sense Bee-Hive has every point of superiority in that direction, as it is virtually a double-walled hive, having thick, closed-end frames inside a body-box or case. (Point 1 in favor of bee-hatched chickens.)

Some of you will remember that I announced the plan of this bee-hive several years ago, when a gentleman and scholar at Notre Dame took it up and tested it, and eulogized it. It has about 2000 square inches of comb-surface, which every bee-master knows will accommodate a good, large colony. (This would be good point No. 2.) My plan, also, joins the super-case directly to the brood-chamber, so as to avoid the waste of heat

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above the brood-chamber by the space usually allowed between them. This is to make a warm hive in the spring for early brood-rearing, and to invite the bees in the section-cases to work sooner than they would otherwise go there. (Large point No. 3.)

Then, I said, the hot summer weather, when the days are nearly warm enough to hatch eggs without the help of either chicks or bees, would surely be in favor of the project far beyond the uncertain spring weather with its freezing nights, so I will try them in the month of July, and this will make point No. 4 to its advantage. Then I took a rousing-big natural swarm, large enough for two colonies, and crowded them all in that hive. (A strong point No. 5. Point No. 6 was that the hive was well filled with full-cell brood comb.) Now if there was any hope in the case, would not these points that I comprehend in preparations made thus far reveal it?

And now we will look at the super. I took a neatly made case of 3/4-inch lumber, with a wire-screen bottom, and a thin rim to set down snugly on the top of the hive, so as to get all the heat among the eggs that the bees might send off; and over the screen-bottom of the super I put a thin piece of coarse burlap to make it less probable that the bees would glue up the meshes of the screen. I tore up a piece of bed-quilt, and made of it a large, soft roll and packed it around the inner sides of the super, leaving a nice, large nest in the middle for 25 select-brood Plymouth Rock eggs on the thin burlap bottom described.

Over this I put a light board-cover, amply quilted on the under side, and fitting down snugly, just over the tops of the eggs.

Now, every body who has brains enough to bait a mouse-trap, knows that all these conditions combined would fetch eggs to a hatching warmth if it were possible to do so over a colony of bees.

Now we will shut it up tightly, and leave them there to warm up. It won't take three weeks to test the matter, for the proof of the thing is right in touch, as you will soon see.

The colony had been hived for several days, as I was waiting to set one of my select Plymouth Rock hens in the park at the same time. She came to a sitting fever in good shape, so that I set her that same afternoon, and in about an hour's time she had her 15 eggs all nicely warmed up under her. Then I went and slipped my hand into the "super-nest" over the bee-hive—and would you believe it—all those 25 eggs were also nice and c-c-c-cool! So they were that night, and so they were the next morning, and the next evening they seemed to be just as cool as they were when I put them in.

Now, if those eggs would not get warm over a colony of bees in the middle of July, fixed that way with everything in their favor for 24 hours, how many years would it take to hatch them there? If an egg could be put right in the midst of a brood-chamber, and kept covered with bees with some way fixed to turn it over every day, it might hatch till it



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got open far enough for the bees to sting the chicken; but the eggs over a bee-hive I believe would never hatch. I might as well have put those eggs in a box right over my sitting hen and wait for them to hatch there. You can't hatch a cold egg, and I think that I have proven that the bees don't even get them warm.

Now, if you want to probe my testimony, just take a good thermometer and set it in a super-case over a colony of bees where the bees can't get up to it for a single night, and see before sunrise what temperature it will indicate; and if it is not pretty near 104 degrees F. you might keep eggs there forever and they would not hatch. Those fellows who have been telling their big stories to the contrary are evidently not trying to build up public confidence in their words; and may they sustain the loss they richly deserve.

COMMON-SENSE BEE-KEEPING.

## Poor Season—Catnip.

It was a poor season for honey here last year. White and alsike clover yielded almost nothing, and sweet clover very little. The bees gathered some from wild mustard and from a few other plants of less importance from a bee-keeper's point of view.

Basswood is nearly all cut here, and I think that the few trees that we have yielded little or nothing this year. Catnip yielded as usual, but there is too little of it here to make much difference in the honey crop. I sowed some catnip seed last spring which I gathered in the fall of 1902, but none of it grew. Plenty of new plants came from self-sown seed. I think it should be sown in the fall.

JAMES L. HOWARD.

Milwaukee Co., Wis.

## White Clover Flow—Good Prospects.

Not seeing any communications in the American Bee Journal from this locality, I thought it might interest some to learn the last season's experience of the bee-keepers of this vicinity. Old bee-keepers say it was the best they ever saw; the flow from white clover was never excelled, if equalled, and as a result we got a superior quality of honey. The tendency to swarm was beyond all control. My bees doubled, besides a number of prime swarms that took to the woods. The fall flow was light; there was an abundance of fall bloom, but it was so cold and wet that the bees could not get the nectar. But most of the bees went into winter quarters in good shape, though some were only fair.

Four carloads of honey have been sent from our town by local producers, besides large shipments for local consumption that would amount to several carloads more. The number of bees in this county is almost double what it was a year ago. The ground is now nicely covered with snow, which is favorable for the clover, and the outlook is good for another prosperous season next year.

R. H. BUCHNER.

Jackson Co., Iowa, Dec. 29.

## Starvation Plan of Introducing Queens.

Remove the old queen in the forenoon, then about one hour before sundown remove the new queen from the escorts to a clean cage, where she can find no food; then a little after sundown let her run in at the hive-entrance. I have used this plan for the last 2 years, and have not lost a queen, and have often found her laying the next day.

This was a poor honey-year here; from 55 colonies I had only 900 pounds of honey, comb and extracted.

JOHN SUTER.

Seneca Co., N. Y., Dec. 29.

## Had a Fair Honey Crop.

Bee-keepers in northwestern Pennsylvania are generally happy and sweet, and are feeling unusually encouraged on account of the past season's honey-flow. For some years we have had poor crops, and one or two years the crop was a total failure, so with a fair crop the past season comes encouragement. The white clover crop was profuse and yielded



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NEW SUBSCRIBERS can have the AMERICAN BEE JOURNAL in place of GLEANINGS, if they wish, or all for \$1.60. Renewals to American Bee Journal add 40c more. **MODERN FARMER,** St. Joseph, Mo.

well, and but for the dearth of fruit-blossoms last spring, which was the cause of many colonies not building up early, the yield of the honey crop would have been immense—that is, for this region.

Honey—basswood and clover—had ready sale at 15 cents a pound, wholesale, although much was sold early to the dealers at 12 cents by those who were afraid they might not get rid of their honey. I sold some of my honey to a dealer for 15 cents, who had previously bought at 12 cents and sold at 14 cents.

GEORGE SPITLER.

Crawford Co., Pa., Dec. 22.

## Some California Bee-Notes.

Bees in this locality have not gathered much for two seasons. The weather was too cold in June, July and August.

Foul brood has quite a hold here, and we are really in need of an inspector.

Fruit-growers are awaking to the fact that bees are beneficial to their industry, and are placing colonies in their orchards.

We seem to be "up against" a honey combine, for buyers offer only 4 1/4 cents for white extracted honey, when last season they paid 5 1/2 and 6 cents per pound. We have about 200 cases of water-white extracted, and 4 1/4 cents, f. o. b., is the best offer so far.

As alfalfa is being planted extensively here, it will no doubt, in time, be of much benefit to the apiarist.

C. K. ERCANBRACK.

Santa Cruz Co., Calif., Dec. 14.

## Selling Canded Honey.

On Dec. 24 the bees were flying and moving around the entrance, denoting that they were clearing out dead bees that usually drop on the bottom-boards.

I note considerable being said, lately, about selling candied honey. Having quite a lot to sell, I put a small advertisement in our county newspaper, and had good results. I was selling liquid honey at 12 1/2 cents per pound, but having rather slow sale. My advertisement said that customers could get the same honey in its candied state for 10 cents per pound, with the result that I ordered the advertisement taken out. I had never tried selling candied honey to any great extent, but customers say they like it better in the candied form than otherwise.

The plan of having several different size pails, from one pound up to 10 pounds, early in the fall, and then put honey in them and let it candy there when cold weather comes, is undoubtedly a wise suggestion. I have already tried some that way, and by so doing a vast amount of labor is saved. I charge enough for the can or pail to pay for the same.

J. M. YOUNG.

Cass Co., Nebr., Dec. 26.

## Drone-Laying Queen—Report.

Has any one had an experience with drone-laying like this? I had a young queen last summer that laid drone-eggs for about 3 weeks, and after that they were all worker-eggs, and the colony got to be as strong as any I had.

From 4 colonies, spring count, I got 700 pounds of comb honey, and increased to 10 colonies. I lost 1 prime swarm and 3 after-swarms.

A. P. RAUGHT.

Lake Co., Ill., Dec. 19.

## Hatching Eggs Over Bees.

On page 840, Mrs. Sarah J. Griffith asked for the number of the Journal in which the article on the bee-hive incubator was published. It was in No. 34, of 1900—Aug. 23.

I was very much interested in the article at the time, and decided to try the plan at the first opportunity. I am preparing to try it about the middle of next month.

Last summer I wrote Mr. J. G. Norton, the author of the article, and enclosed a 2-cent stamp asking if he had changed his mind in any way as to the success of the plan; and if he would advise me to try it. I waited 2 or 3 weeks, and receiving no reply I wrote him again, this time enclosing a return postal card,

and asking him simply to write "Yes" or "No," if he was too busy to write a letter. I received no reply to this. He must have received the letters or they would have been returned to me. I have thought, perhaps he had a good thing and did not care to share it with any one else, unless there was something in it for him, as in his first article on the subject he said he had applied—I supposed he meant—for a patent, and would have the plan before the public before next spring. As the present is not a good plan for the American Bee Journal to re-publish the article so that any bee-keeper who would like to do so may try it, starting about the same time as the bees begin hatching? A. W. MACBRAIN.  
Hamilton Co., Ohio, Jan. 6.

[Suppose you read the report on this subject as given by "Common-Sense Bee-Keeping," on another page of this very number. If you want to hatch hens' eggs, get a live hen, or incubator. Don't waste time in trying to get bees to do something different from what they were intended to do.

And here comes another report:—EDITOR.]

In answer to Miss Wilson as to hatching eggs with bees, I will own that I was the loser of 14 eggs last spring; it makes me laugh when I think of it.

My mother is a great lover of chickens, but has not kept any for quite a few years, owing to being so close to neighbors' fields. But last spring I asked her how she would like to see me hatch a fine sitting of eggs without a hen. She said she would like to see me do it before she would believe it, but would beg to accept the clutch of fine chickens. Of course, I could see the 14 snow-white chicks running around—in my mind.

So off I started, and got a hive ready to make into a fine old "hen." I had a rousing colony of bees, so I got a super and put a screen in the bottom, and padded the sides with some pieces of old carpet. Next I sent my little brother 3 miles for eggs, which cost me \$1.00, but I got good measure—14 eggs for a sitting.

Well, I put the eggs on the screen and covered them with 3 layers of carpet, marking the date. I used to go and turn them 2 or 3 times

## Texas Queens!



3 and 5 banded Goldens from a reliable breeder. You all know him—DANIEL WURTH—the Queen Specialist—who fills orders by Return Mail. I am here to stay, and thank my many friends and patrons for their liberal patronage in the past. Wishing you all a Happy New Year, I am ready as usual to furnish you with the best of Queens. Tested, in March and April, \$1.25 each; Untested, in

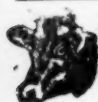
April and May, \$1.00 each; 6 for \$5.00. Breeders, yellow all over, \$3.00 each. I am booking orders for early delivery.

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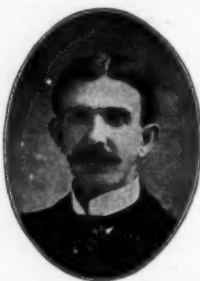


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We wish to advise our friends that on and after Jan. 1st we shall be located in our new 3-story building, 521 Monroe Street, where we shall keep on hand at all times the largest stock of

**Poultry and Bee-Keepers' Supplies in the West.**

Remember, we handle ROOT'S GOODS exclusively, and with the low freight rates, and the 4 percent discount which we offer during December, enables Toledo to excel all other shipping points. Thanking you for past favors, and soliciting a continuance of the same, we remain,

Yours truly,

GRIGGS BROS., 521 Monroe St., TOLEDO, OHIO.

FREE CATALOG. Ask for it.



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CINCINNATI, OHIO.



a week. During the last week-mam would ask me how her chickens were coming on. I told her I could hear them peeping! So we waited for the 21 days, and when it came we went to get the chickens. But, my! there were no chickens there. So we broke the eggs, and from the first to the last of them they were about as fresh as if they were just laid the day before. So ma had a good laugh at me, and I didn't blame her a bit—I had to laugh, too.

Ma said it must have been the bees I heard peeping. I said, "I guess it was."

So all our bee-keeping brothers and sisters can laugh with us. JAMES P. KANE.  
Dubuque Co., Iowa, Dec. 31.

["Good-bye" to another impractical idea.  
—EDITOR.]

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**Timothy and**  
**Fodder Plant**  
**Seed Growers**  
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development of the chick in the shell, FREE, by mentioning the American Bee Journal and sending to Geo. H. Stahl, Quincy, Ill., 4 cents to pay for postage and package.

Please mention Bee Journal when writing Advertisers.

### CONVENTION NOTICE.

**Wisconsin.**—The annual convention of the Wisconsin State Bee-Keepers' Association will be held in the Capitol, at Madison, on Wednesday and Thursday, Feb. 3 and 4, beginning at 10 a.m., Wednesday. We are and have been doing our utmost to make this the most enthusiastic convention ever held in the State, and a most complete and interesting program will be presented. We are at this time assured of 8 papers on interesting subjects, by prominent bee-keepers, among them George W. York, W. Z. Hutchinson, and of course President and General Manager France. A free to all question-box will also be a part of the program. We urgently invite all who are not members, to participate with us; it will pay you in every way—in fact the social part alone is worth it. Come and get acquainted with our visitors and the bee-keepers of the State. Reduced rates will be given by the hotels, and the railroad fare will be 1½ for the round trip. Just ask your agent for a 1½ fare round-trip ticket. It will save lots of time if members, and all those wishing to become such, will remit their annual dues to me prior to the convention. The dues are \$1.00, which also makes you a member of the National Association. Exhibits of honey are solicited, and suitable premiums will be awarded. GUS DITTMER, Sec.  
Augusta, Wis.

### GOOD BEE-HIVE CHEAP!

Called the poor man's hive. Either 8 frame or 10. Sections sold at last year's prices. Full line of SUPPLIES. Subscription to bee-journals with orders. Send for list.

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## HONEY AND BEESWAX

### MARKET QUOTATIONS

**CHICAGO, Jan. 8.**—The new year opens with a quiet trade in honey, retailers having usually a supply from the stocks laid in to make a good show at the holiday time. Prices are without essential change in No. 1 to fancy comb, which brings about 13c; very little doing in off grades at from 10c less. Extracted, white grades, bring from 6c to 7c, according to flavor and other qualities; ambers about 1c less; especially weak are those lacking in flavor and body. Beeswax steady at 28c. **R. A. BURNETT & Co.**

**CINCINNATI, Jan. 8.**—The market on comb honey has weakened, as the supply has been larger than the demand. Fancy water-white, 14c; off grades, lower. Extracted, amber, in barrels, 5½@5¾c; in 60-lb. cans, ½c more; alfalfa, water-white, 6c@6½c; fancy white clover, 7c. Beeswax, good demand; 30c for nice. **C. H. W. WEBER.**

**PHILADELPHIA, Jan. 13.**—There has been very little call for honey since the holidays. The first two weeks of the year are the duller during the season; people become somewhat surfeited with sweets, lessening the demand. The market is somewhat weaker, with quite a few arrivals. We quote fancy comb at 15c@16c; No. 1, 13c@14c; amber, 12c. Extracted, white, 7½@8c; amber, 6c@7c. Beeswax, 31c. We are producers of honey and do not handle on commission. **WM. A. SELSER.**

**ALBANY, N. Y., Jan. 15.**—Honey market extremely dull since the holidays and cold weather. Quotations are nominal, and asking prices mostly. We are quoting 15c for fancy white; 14c for A No. 1; 12c@13c for dark and mixed, but would shade these prices now rather than lose sales. Extracted, inquiry improving somewhat, especially on the buckwheat and darker grades. **H. R. WRIGHT.**

**CINCINNATI, Nov. 20.**—The demand for comb honey is slower now than it was six weeks ago, owing to the enormous quantities offered on all sides. Fancy comb is sold in single case lots at 14c. The supply of extracted honey is big, although the demand is good. We are selling amber extracted in barrels at 5½@6¾c. White clover, in barrels and cans, 7½@8½c, according to quality. Beeswax, 30c. **THE FRED W. MUTH CO.**

**BOSTON, Dec. 21.**—The demand for honey continues good, with an ample supply of comb, and a light supply of extracted. We quote our market as follows: Fancy white comb, 16c@17c; No. 1, 14c@15c; and practically no No. 2 to offer. Extracted, 7c@8c, as to quality. **BLAKE, SCOTT & LEE.**

**KANSAS CITY, Dec. 30.**—Instead of our honey market improving, it has grown worse as far as comb is concerned. The receipts have increased and fancy comb and No. 1 have been sold as low as \$2.50 per case of 24 sections. We do not look for any improvement in prices before February, if then. We quote: Fancy white comb, 24 section cases, \$2.60; No. 1, \$2.50; No. 2, \$2.40. Extracted, white, per lb., 7c@7½c; amber, 6c@6½c. Beeswax, 25c@26c. **C. C. CLEMONS & Co.**

**NEW YORK, Dec. 4.**—Comb honey is arriving in sufficient quantities to supply the demand, and, as to the quality, most of the white honey seems to be of color, more or less. We quote fancy white at 14c; No. 1 at 13c; amber, 11c@12c; and buckwheat, 10c. Extracted, light amber, at 6c; white, 6½c; Southern, 55c@60c per gallon; buckwheat, 5½c. Beeswax, 28c@29c. **HILDEBRATH & SGOELEN.**

**SAN FRANCISCO, Jan. 6.**—White comb, 1-lb. frames, 13c@14 cents; amber, 9c@11c. Extracted, white, 5½@6c; light amber, 4½@5c; amber, 4c@4½c; dark amber, 3½@4c. Beeswax, good to choice, light, 27½@29c; dark, 25c@26c. Spot stocks are not particularly heavy, but trade is slow. Only for most select qualities does the market show firmness.

## HONEY AND BEESWAX

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are no better than those we make, and the chances are that they are not so good. If you buy of us **you will not be disappointed.** We are undersold by no one. Send for new catalog and price-list and free copy of THE AMERICAN BEE-KEEPER; in its thirteenth year; 50 cents a year; especially for beginners.

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Apiaries—Glen Cove, L.I. Catalog free.

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We sell the best Veils, cotton or silk.

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All parts of our Hives are made to Fit Accurately. Perfect Workmanship and Finest Material. No trouble in setting them up. Our customers say it is a pleasure. We are not selling goods on NAME ONLY, but on their QUALITY.

Twenty Thousand Additional Square Feet of floor-space just added to our plant. We now have over Forty-Five Thousand square feet of floor-space. We certainly can take care of your orders promptly. Remember That.

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NEW HAVEN, IOWA, June 27, 1903.

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Yours for business,

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**G. B. LEWIS COMPANY,**  
Manufacturers Bee-Keepers' Supplies,  
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